CENTRAL VALLEY FLOOD MANAGEMENT PLANNING PROGRAM

FloodSAFE CALIFORNIA

Meeting Summary
Lower Sacramento Regional Management Actions Work Group Meeting #2

September 21, 2010, 12:30pm – 4:30pm
Location: City of Sacramento Department of Utilities
1395 35th Avenue
Sacramento, CA 95822

WORK GROUP ATTENDANCE:

Name	Organization	Status
Francis Borcalli	FloodSAFE Yolo; Water Resources Association of Yolo County	Member
Bill Busath	City of Sacramento	Member
Bill Center	American River Recreation Association, Planning & Conservation League, CABY (Cosumnes, American, Bear, Yuba) IRWMP	Member
Andrea Clark	Three Rivers Levee Improvement Authority	Member
Jim Cornelius	Sutter County RCD	Alternate
Mike Dietl	U.S. Army Corps of Engineers (USACE)	Member
William Edgar	Sutter Butte Flood Control Agency	Member
Eric Ginney	PWA, Ltd., Environmental Hydrology & Geomorphology	Member
Mike Hardesty	RD 2068, RD 2098, California Central Valley Flood Control Association	Member
Jennifer Hobbs	U.S. Fish and Wildlife Service	Member
Gena Lasko	California Department of Fish and Game	Member
Steve Rothert	American Rivers	Member
Dave Shpak	City of West Sacramento	Member
Tom Smythe	Lake County	Member
Susan Tatayon	The Nature Conservancy	Member
Jeffrey Twitchell	District One of Sutter County; urban and rural interests of Yuba City-Sutter Basin	Member
Tim Washburn	Sacramento Area Flood Control Agency	Member
Jeremy Arrich	CA Department of Water Resources	CVFPO* Chief
Ken Kirby	Kirby Consulting	CVFPO* Executive Advisor
Noel Lerner	CA Department of Water Resources	DWR Executive Sponsor
Stacy Cepello	CA Department of Water Resources	FESSRO*
Erin Mullin	CA Department of Water Resources	CVFPO**
Loren Murray	CA Department of Water Resources	Regional Coordinator

Name	Organization	Status
Cait Plantaric	CA Department of Water Resources	CVFPO**
Kari Shively	MWH Americas Inc.	Technical Lead
Yung-Hsin Sun	MWH Americas Inc.	Team
Craig Wallace	MWH Americas Inc.	Team
Mike Harty	Kearns & West	Facilitator
Ben Gettleman	Kearns & West	Facilitation Support / Note Taker

*FloodSAFE Environmental Stewardship and Statewide Resources Office

**Central Valley Flood Planning Office

ABSENT:

Paula Britton	Upper Lake Rancheria	Member
Scott Clemons	Riparian Floodplain Joint Venture	Member
Regina Cherovsky	Conaway Preservation Group LLC, Reclamation District 2035, Water Resources Association of Yolo County	Member
Chuck Dudley	Yolo County Farm Bureau	Member
Dan Fua	Central Valley Flood Protection Board	Member
Miki Fujitsubo	U.S. Army Corps of Engineers (USACE)	Member
Gary Hobgood	California Department of Fish and Game	Member
Larry Lloyd	Sutter County RCD/Yuba County RCD	Member
Stefan Lorenzato	Yolo County Flood Control and Water Conservation District	Member
Ronald Stork	Friends of the River	Member
Helen Swagerty	River Partners	Member
Warren Westrup	Yolo County Department of Parks and Resources	Member

ACTION ITEMS

1. Erin Mullin, CVFPO, will follow up with work group members interested in organizing a CVFPP presentation.

GROUP RECAP (meeting highlights for use by Work Group partners in their communications)

The Lower Sacramento Regional Management Actions Work Group (Work Group) of the Central Valley Flood Management Program (CVFMP) continued its work on September 21, 2010 with the following activities:

- Reviewed outcomes of Management Actions Workshops and process for revising Management Actions;
- Discussed regional applicability of Management Actions; and
- Established a subcommittee to continue development of regional objectives (prior to Meeting 3 of the Work Group).

The purpose of the Work Group is to assist DWR in framing management action categories and providing advice on the general approach to incorporating management actions into the CVFPP. The Work Group provides an additional level of review, with a particular eye to regional significance, on the input received during CVFPP management actions public workshops. The Lower Sacramento Regional Management Actions Work Group is one of five regional work groups for the CVFMP.

MEETING GOALS

1. Review outcomes of Management Actions Workshops and process for revising Management Actions
2. Introduce the process and logic for building solution sets
3. Discuss regional applicability of Management Actions
4. Initiate discussion of "regional objectives," and organize subcommittee to continue development of regional objectives (to take place between meetings 2 and 3)

SUMMARY

Welcome and Greetings

Mike Harty, meeting facilitator, welcomed the Work Group participants and reviewed the meeting purpose, objectives, and agenda.

Opening Remarks

Noel Lerner, DWR Flood Project Office Chief, welcomed the meeting attendees and thanked them for their participation. Mr. Lerner provided an overview of the 2012 CVFPP, which will provide the framework for the 2017 plan. Phase 1 of the CVFPP planning effort focused on defining regional conditions, Phase 2 (the current phase) focuses on the identification of management actions, and Phases 3 and 4 will address regionally appropriate solution sets and systemwide solutions sets, respectively.

Mr. Lerner reported on the status of several documents currently being developed: the Flood Control System Status Report (FCSSR) will be available for public review and comment in late 2010-early 2011; the State Plan of Flood Control (SPFC) Descriptive Document will be available for public review and comment in December 2010; and the CVFPP Progress Report will be available by the end of 2010. In addition, the programmatic Environmental Impact Report (EIR) for the CVFPP is proceeding, and the Notice of Preparation (NOP) and corresponding scoping meetings are planned for November 2010. Finally, Mr. Lerner noted that the Management Actions Report and the second Interim Progress Summary Report (IPS2) will be released in early November 2010, prior to the third meetings of the Regional Management Actions Work Groups (RMAWGs).

Outcomes of Phase 2 Management Actions Workshops, Roadmap for Phase 2

Erin Mullin, DWR Central Valley Flood Planning Office, provided an overview of management actions, noting that the RMAWGs are now focusing on the regional applicability of management actions for the CVFPP. Ms. Mullin reviewed key outcomes from the Phase 2 Management Actions Workshops, and also reviewed the Phase 2 timeline that includes a Valleywide Forum scheduled for December 9, 2010.

Q: During Phase 1 of the CVFPP process, DWR offered to give presentations to local jurisdictions; is DWR still willing to do this?
A: Yes, the presentations will begin next month. Program team members are happy to work with you to schedule a presentation.

Q: What will be the focus of RMAWG Meeting #3?
A: The focus of Meeting #3 will be to consider what the subcommittee has developed regarding regional objectives, and to begin considering regional solution sets.

Process and Logic for Building Regional and Systemwide Solution Sets

Kari Shively, MWH technical lead, presented on developing regional and systemwide solution sets. She noted that during Phase 3 the focus will be on regional solutions, and during Phase 4 the focus will be on systemwide solutions. Some management actions are place-based and will be addressed during Phase 3. Other management actions, such as education and permitting, have a broader application and will be developed in a parallel process, although they could potentially be addressed during Phase 3 workshops. Ms. Shively also added that some management actions may not fit into the scope of the CVFPP, and these could potentially be deferred to other projects and programs.

Four approaches have been developed by the project team for CVFPP Solution Sets:

- Restore SPFC Design Approach, which would restore the design flow capacity of the existing State-Federal system. This approach would likely provide varying levels of flood protection.
- Critical Public Safety Approach, which would address aspects of the system that represent critical threats to public safety. This approach could take place sooner and faster, with fewer projects, but there would likely be trade-offs.
- Floodplain Management Approach, which would address public safety, but would focus more on managing the consequences of flooding than on making significant structural changes to the system to prevent flooding.
- Multi-Benefit Approach, which would make major modifications to the system in order to provide multiple benefits, such as restoration, water supply, and recreation benefits.

Ms. Shively noted that a single approach would not be selected in 2012, and that identifying the four approaches is intended to promote identification of tradeoffs and key decision-making factors. For the initial recommendation to the Central Valley Flood Protection Board (Board) in 2012, the intent is to identify common elements and actions across the different approaches.

Q: When the regional solution sets are grouped into approaches, will there be documentation of the tradeoffs or opportunities lost by using one approach over another?
A: Yes, we want to be able to compare fundamentally different approaches on a systemwide scale. This is the purpose of putting these different packages together. It will likely be a reconnaissance level of comparison (i.e., not quantitative).

Q: How will the Board decide on an approach?
A: DWR is developing the CVFPP and the plan will include recommendations. The Board and the public will comment on the plan, the Board will ultimately make a decision (whether to adopt). The focus of the Board's review will likely be on the common elements between the approaches.

Comment: I am concerned about creating solution sets that will lead to alternatives being put into predetermined categories. We need to be cautious about this.
Response: This is a good point. What is ultimately implemented in the Central Valley will likely be a combination of the four solution sets. By grouping them together it provides a good basis for comparison. We want to be cautious of just passing forward one solution set.
Comment: What will come out of this, then, is not one solution set; hopefully it will be more of a combination. I am leery of compartmentalization.

Q: Are the approaches the four alternatives that will be considered by the Board in 2012?
A: No, the approached are not alternatives; they will be used to identify tradeoffs and key decision points that the Board and other entities can use when considering future changes to the flood management system. The ultimate path taken will likely be a combination of the approaches represented in the solution sets.

Comment: There seem to be underlying assumptions regarding costs in the Solution Sets graph.
Response: The graph is intended to be a conceptual figure and is not based on any analysis. The graph is intended to provide an initial sense of how different solution sets might compare in terms of cost and other factors.
Response: DWR is also considering the long-term costs of O&M and how they might differ for the solution sets. DWR is considering how much implementing the plan will cost now and in the future.

Q: Is there any relation between the groupings of management actions and how DWR will describe the project for the purpose of preparing the CEQA document?
A: The project described in the Program EIR will likely be a combination of the solution sets; it will bracket the full range of actions that could be taken. The PEIR will discuss impacts in broad terms and will identify potential environmental consequences.

Discuss Regional Applicability of Management Actions

Work group members participated in filling out the Regional Applicability of Management Actions worksheet, where the group was asked to provide feedback on the applicability of the management action categories and subcategories to the Lower Sacramento region. Prior to beginning the worksheet exercise, Kari Shively noted that some management actions may not necessarily apply to the whole region, and that the group may need to consider sub-regional applicability. She also suggested that the group consider whether a management action provides a localized benefit or a combination of local and systemwide benefits.

The results of the exercise are captured below:

Note: The work group concluded that all of the management action categories and subcategories applied to the Lower Sacramento region.

Additional Floodplain & Reservoir Storage, *Floodplain Storage (transitory storage)*

Constraints:

- Land costs
- Land development
- Land ownership
- Current land uses that may not be compatible with floodplain storage
- Infrastructure costs for realizing gains (i.e., maintenance costs)
- Loss of tax base
- Institutional incompatibilities – multiple levels of government have different purposes
- Land use at the county level – general plans are often incompatible with the concept of floodplain storage
- Existing agriculture

Compatibilities:

- Environmental enhancement, restoration
- Reduced maintenance costs – the costs could increase or decrease depending on the project
- Habitat conservation plans
- Conveyance allows for flexibility of operations; this could apply to systemwide benefits
- The system is highly constrained. There is a defined channel. Off-channel storage should be considered as a release valve.
- Floodplain storage would offer additional storage that doesn't exist or isn't being used today.
- Cosumnes River is an example of an opportunity to increase storage and achieve multiple benefits.

Other Comments/Questions:
Q: Does "compatibilities" include compatibility with other plans like the Bay Delta Conservation Plan (BDCP) and the California Water Plan?
A: This exercise is focused specifically on applying actions within this region, but BDCP does overlap with the Lower Sacramento region.

Q: Does MA #7 (Increase foothill and upper watershed storage) include mountain meadows?

A: MA #39 (Manage runoff through watershed management) better addresses mountain storage. MA#7 is more focused on reservoir storage (such as in the major foothill reservoirs) than meadow storage.

Additional Floodplain & Reservoir Storage, *Reservoir Storage*

Constraints:
- Facility ownership – some facilities are locally owned and others are owned by state or federal agencies.
- Wild and scenic reaches
- Cost of land acquisition
- Impact on local communities
- Impact on timber production
- Impact on habitat quality
- Water rights
- Efforts to restore fish habitat – if there is an interest in removing storage facilities, this might conflict with efforts to restore spawning habitat (e.g., NOAA's efforts to restore steelhead and salmon habitat).

Compatibilities:
- Uncontrolled tributaries
- Limited channel capacities
- More storage is compatible with water supply and hydropower

Other Comments/Questions:
Q: Does this category include reservoir re-operation?

A: No, it does not.

Storage Operations

Constraints:
- Storage operations may or may not be compatible with water supply and hydropower. This could depend on how much you're willing to rely on advanced weather forecasting when operating the reservoir.
- Fragility of the downstream system – storage operations would demand more of the downstream system

Compatibilities:
- Habitat benefits, depending on how the storage is operated

Other Comments/Questions:
Comment: I don't see facility modification-related management actions represented in this category. I would want to see this, as you need physical operations to gain multiple benefits.

Response: This is captured in the detail of the individual management actions.

Flood Protection System Modification, *Reduce Physical Flow Constrictions*

Constraints:

- Land costs
- Land development
- Land ownership
- Current land uses that may not be compatible with floodplain storage
- Infrastructure costs for realizing gains (i.e., maintenance costs)
- Loss of tax base
- Institutional incompatibilities – multiple levels of government have different purposes.
- Land use at the county level – general plans may be incompatible with the concept of floodplain storage.
- Existing agriculture
- Modification of a federal facility
- The Cache Creek Settling Basin is a barrier to flood conveyance; it creates a flow constriction.
- Mercury-related impacts
- Utilities
- Infrastructure constraints – bridge abutments, pipelines, power lines, culvert locations, rail lines. We need to start at the bottom of the system and work our way up.
- Systemwide problem – removing the problem from one place often transfers the problem somewhere else. There needs to be a rule on how system capacity can be modified without creating problems in another place in the system. This requires a systemwide analysis and approach.
- The reverse flow of the Lower American River impacts the Yolo Bypass' capacity. This is a local problem (or an opportunity, depending upon how handled).
- The Sacramento River, both through and south of Sacramento, has constrained channels and it is not easy to solve these constrictions. I'm not sure if 200-year level of flood protection is possible.

Compatibilities:

- Reduces need for increased upstream or offstream storage

Flood Protection System Modification*, Bypasses*

Constraints:

- Land costs
- Land development
- Land ownership
- Current land uses that may not be compatible with floodplain storage
- Infrastructure costs for realizing gains (i.e., maintenance costs)
- Loss of tax base
- Institutional incompatibilities – multiple levels of government have different purposes.
- Land use at the county level – general plans are often incompatible with the concept of floodplain storage
- Existing agriculture
- Encroachments in the bypass
- The Yolo Bypass has restricted-height levees
- The ship channel
- Existing assessments don't allow modifications to the existing system. They can be modified but require a different agreement. This is an institutional challenge.

Compatibilities:

- Environmental enhancement, restoration
- Reduced maintenance costs – the costs could increase or decrease depending on the project.
- Habitat conservation plans
- Conveyance allows for flexibility of operations; this could apply to systemwide benefits

- The system is highly constrained. There is a defined channel. Off-channel storage should be considered as a release valve.
- Floodplain storage would offer additional storage that doesn't exist or isn't being used today
- Potential significant habitat compatibility
- The system can be designed to improve conveyance and habitat. With more space the habitat can be increased, but this has the cost of lost agricultural land.
- BDCP

Flood Protection System Modification, *Existing Levees (raise, restore, or improve)*

Constraints:

- Vegetation – the vegetation issue forces an asymmetric use of resources. Many agencies cannot address the worst flood threats because of this issue.
- Encroachments
- Levee standards have historically changed over time.
- Impact on local agencies
- Impacts on other parts of the system

Compatibilities:

- None identified

Flood Protection System Modification, *Setback Levees and New Levees*

Constraints:

- Costs (i.e., eminent domain)
- Community reaction to eminent domain
- Topography
- Land use
- Downstream hydraulic impacts
- Local government compatibilities; setback levees/new levees could alter revenues

Compatibilities:

- The constraints listed above could also be compatibilities. There may be an opportunity for agriculture, for example.
- Potential for onstream habitat values
- Setback levees/new levees could eliminate conflicts between agencies
- There is potential to create more compatibility vis-à-vis agriculture. Losing a crop one year out of 50 years is much better than losing a crop one year out of ten years.
- Connection to storage operations

Other Comments/Questions:

Comment: USACE levee vegetation guidelines could be a compatibility or a constraint depending on the situation

Flood Protection System Modification, *Ring Levees*

Constraints:

- Institutional challenges
- Local resistance to ring levees
- Land use
- Ring levees limit the growth potential of a small community.

Compatibilities:

- None identified

Other Comments/Questions:
Comment: Ring levees are not always required to protect a community from being flooded; a community shouldn't necessarily be forced to create one. This should be addressed on a systemwide basis.

Comment: If a ring levee is a local project, requirements (USACE, etc.) will differ.

Operation and Maintenance, *Dredging*

Constraints:
- Permits
- Institutional constraints

Compatibilities:
- Positive effect of dredging for maintenance. Dredging produces materials that can be used on other projects such as stabilizing levees.
- Cache Creek setting basin
- Downstream of Fremont Weir
- Periodic dredging of sloughs

Operation and Maintenance, *Vegetation Management*

Other Comments/Questions:
Comment: The vegetation management issue forces an asymmetric use of resources. We can't address the worst threats because of this issue.
Response: DWR is continuing the conversation with USACE regarding levee vegetation, and a broader audience will likely need to be involved to achieve resolution.

Comment: Local agencies can't make headway on their "no regrets" projects because of the vegetation issue.

Q: How will the CVFPP address vegetation?
A: Vegetation will not be directly addressed in the CVFPP. The CVFPP will assume that a workable variance is in place to do the work that needs to be done. DWR is confident that an agreement can be reached. If it cannot be resolved between the agencies, other decision-making bodies will be engaged, as appropriate.

Comment: The existence of vegetation in a channel affects the movement of sediment. At some point in time, there will need to be an imperative to get sediment moving downstream. Understanding the movement of sediment will be key.
Response: This is a different type of research that should be considered moving forward.

Operation and Maintenance, *Bank Stabilization*

Constraints:
- Permits and right-of-way
- Habitat
- There is ambiguity about who is responsible (state or local maintaining agency) to address erosion. There is a fundamental disagreement about where the state's responsibility ends and the local agency responsibility begins

Compatibilities:
- There is always a need for bank stabilization; it is essential
- The CVFPP provides the opportunity to add clarity regarding responsibility and accountability for bank stabilization

Other Comments/Questions:
Comment: There is a larger question that should be considered – is there a need for larger bank stabilization programs?

Comment: The question of who is responsible should be clarified before the plan is developed. This needs to be resolved. The plan can't resolve this legal issue.
Response: DWR is committed to resolving this. It will likely require a legislative agreement.

Floodplain Management, *Floodproofing*

Constraints:
- Agricultural storage
- Hazardous waste

Compatibilities:
- Only in shallow floodplains

Ecosystem Restoration

Constraints:
- Land use and ownership
- Cost – the cost can take away from the flood control aspect because of the limited amount of money.
- Institutional restrictions. Sometimes special legislation is required to do habitat restoration.
- Local agencies need the authority to be able to do this.
- There is often a conflict between restoration and flood protection – sometimes both are not possible. One action will often take priority in a given circumstance.
- Governance – agencies can't take ownership of other functions. They each have their own mandates and they remain focused on achieving them.

Compatibilities:
- Multi-benefit projects – restore ecosystem and increase conveyance
- The Hamilton City Flood Damage Reduction & Ecosystem Restoration Project met USACE's NED benefit/cost requirement due to the ecosystem restoration component of the project; the flood damage reduction component did not meet the NED benefit/cost requirement on its own.

Other Comments/Questions:
Comment: The State's water supply projects are taking away the restoration land available. Only a limited number of acres will be able to be inundated for either water supply or restoration.
Response: This is an important consideration, but it's not necessarily a decision between water supply or restoration. DWR is formulating strategies to address multiple objectives in areas like the Yolo Bypass.

Comment: Many projects – particularly urban ones – do include ecosystem and recreational benefits without labeling them as enhancements. These projects represent a reasonably small percentage of the cost and they provide significant benefits.

Comment: The issue of authority still needs to be resolved.

Discussion of Additional Topics

In addition to discussing the regional applicability of management action categories, the group also discussed other key issues that impact the Lower Sacramento region, including encroachments and level of flood protection. A summary of the conversation follows:

Comment: State staff has taken several encroachments to the Board and it has refused to deal with them. Sometimes the Board enforces the resolution of encroachments, and other times it issues a variance.

Response: It is important to keep in mind what the CVFPP aims to achieve (i.e., improving public safety and preventing catastrophic failure). Issues like vegetation and encroachments are important but they are not the most threatening issues that this plan addresses.

Q: Will the state articulate how it will address the problem of encroachments in the plan?
A: The levee system is a legacy system so there are historical issues including encroachments, and we need to deal with these issues on a case-by-case basis.

Comment: The high level of protection assigned to urban areas should not apply to all areas. There should be a new standard for how we look at different areas. We are still using a one-size-fits-all method which is not effective.
Response: Non urban levee criteria are still being developed, and they will be different from the urban criteria.

Comment: Assigning level of protection will have an effect on local agencies. If a community is below the 200-year flood protection level, FEMA protection levels become the requirement. This may require a general plan amendment.
Response: DWR is interested in a systemwide perspective that considers varying levels of protection in the Central Valley.

Comment: With the state determination of flood risks, the state's relationship with local entities is going to be strained.
Response: FEMA sets the flood protection levels for non urbanizing communities; DWR is trying to change the federal law on how that would apply. DWR is working with counties to make flood protection improvements that make sense to them.

Developing "Regional Objectives" and Subcommittee Meeting Approach

Kari Shively, MWH, reviewed the process of developing regional objectives providing specificity on what should be achieved in each region. She noted that, to begin, the regional objectives would focus on the primary CVFPP Goal of improving flood risk management. She then introduced sample regional objectives to give a sense of what DWR is looking for, and asked the group how these sample regional objectives could be tailored to specifically relate to the Lower Sacramento region, or a smaller subregion.

Comment: When identifying regional objectives, the distinction between urban and nonurban communities should be maintained.

Comment: Regional objectives should be categorized as specific to urban, non urban or small communities in terms of identifying deficiencies and the standards that are applied to them. Comparing the conditions to the standards will then prompt the question of what will be done to address them.

Comment: Agriculture should apply to small and non-urban communities.

After receiving input from the group, Mike Harty presented the approach of dividing regional objectives into the categories of urban, non-urban, and small communities, and introduced the concept of objectives needing to be measurable. The regional objectives could also be further divided into subregions as appropriate. The group approved this approach, and identified the following regional objectives during the meeting:

- Provide 200-year flood protection for urban areas.
- Put emergency response and evacuation systems in place to protect human life in areas that do not have 200-year flood protection.
- Consider post-flood recovery for communities with non urban levees.
- Increase the number of flood insurance policies.

- Increase the number of acres accessible to planned transitory storage of flood waters. Increase the size of the floodplain to reduce flood risk.
- Limit or eliminate loss of life in a 100-year flood event.

Mike Harty then provided an overview of the subcommittee's charge, noting that the subcommittee would meet once or twice before Meeting #3 to develop potential regional objectives specific to the Lower Sacramento region. These recommendations will then be presented to the full group for consideration during Meeting #3.

Recruitment of Subcommittee Members

The following work group members volunteered to participate in the subcommittee:

- Bill Busath
- Steve Rothert
- Eric Ginney
- Tim Washburn
- Fran Borcalli

Other work group members are welcome to participate and should be in touch with Mike Harty or Janet Thomson as soon as possible to advise of their interest.

Next Meetings, Action Item Review, Meeting Recap

Mike Harty provided an overview of the goals for Meeting #3, which will take place on November 9, 2010. He thanked the work group members for their attendance.